FADCA>BEACON

THE FLORIDA AMATEUR DIGITAL COMMUNICATIONS ASSOCIATION NEWSLETTER

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SQUELCH TALES

Keith O'Brien, N4ZQ

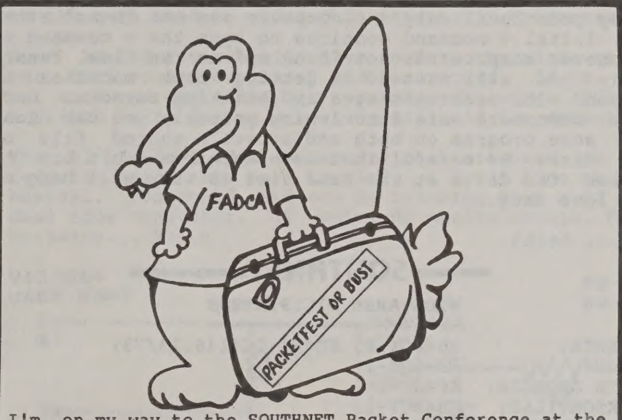
NEWS FLASH - DATELINE ORLANDO HAMFEST.

Kantronics Inc. today admitted that it will soon be in the Packet business. Having been secretly working behind closed doors for the last 9 months, a company spokesman let it be known that their enterance in Packet Radio will be forth coming in the next few weeks.

A few months ago, in my BEACON ramblings, I mentioned how easy it was for me to get on RTTY/ASCII/AMTOR using my VIC Computer and Kantronics software. How Kantronics had been very successful in integrating the home computer with amateur radio, and responsible for the explosive growth in digital ham communications. I also wondered if Kantronics was even thinking of getting into the Packet Racket. After a long conversation with Travis Brann (WA5RGU) Kantronics Service Manager, and with his permission, we can here announce that they have indeed jumped onto the packet scene. To be offically unveiled at the Dayton Hamfest, we got to see the advance ad releases scheduled for the May ham publications. Kantronics has also taken the hardware approach, but this time with their own design and not a TAPR TNC clone. Fully assembled and tested, it's both AX.25 and Vancouver compatible. A new wrinkle is that it supports both Bell 103 and 202 design. Their claim is that they have made it easier to hook up and get on Packet. With a suggested list price of $389.95, it's considerably cheaper then the AEA PKT-1. Also noticed at the bottom of the ad was the fact that they were not going to neglect the software end of the business. Soon to follow the hardware package, will be Packet terminal programs for some of the more popular computers. This probably means, if they follow suit with their RTTY software, the Apple, Vic/C64, Atari, and TRS-80C. One can only dream of split screen, data transfer, and type ahead buffer. Look for some very interesting things to be coming along with Kantronics enterance into Packet.

Orlando Hamfest '85, WOW! What a show, and probably the best we seen from the City Beautiful in some time. Easy to get to, super facilities with plenty of space, and a gigantic crowd. After a few ho-hum shows over the past six or so years, the Big O gang have really got it back together. It appeared that the once biggest hamfest in the state, might just recapture the title again from Miami. The indoor air conditioned swap area was just monstrous, with some of the widest aisles I've seen to handle the biggest of crowds. One of the ways I judge a Fest is by the ease of parking, and I had no problem getting close to the Expo Centre, an hour after it opened Saturday. And was FADCA there? You bet it was, First Class all the way. Jim, K4AHO, did an outstanding job on setting up the packet activity. A tip of the hat, for a job well done by Jim and company. It really appears that packet has come out of the back room to stand with the best of the show. For those of you who weren't in packet or forgot about Orlando 84, let me remind you that the packet display was literary down the end of the third floor hall in a back room! One had to be lost to find it. 1985 found packet on the main floor with the Big Boys. You couldn't miss it, as most had to go pass the booth to get to the swap area. The Saturday afternoon meeting was well attended and much was learned by all. Primarily geared for those that are on packet now, we noticed many that stayed for the entire forum who were just interested and thinking of getting in on the action. The 2 hour forum occupied the largest meeting room available. It's going to take something to top this show for Packet in Central Florida, but wonder what next year will bring.

Orlando gave me the first opportunity to see the Heathkit HD-4040 packet kit. Must emit that I personally like the lower profile of their cabinet. The release of the HD-4040 is set for the secound week of April, but the lack of a Heathkit manual might slow it down a bit. Just wonder how they can improve on a superb TAPR document. Should make for some interesting reading, I would think. Heathkit was one up on the AEA booth, in that they had there TNC running on the air and connected to Zenith computer. Many had the chance to have a packet hands on experience, with a nice looking Benton Harbor setup.



I'm on my way to the SOUTHNET Packet Conference at the University of Florida, Gainesville, June 15 and 16.

Double Talk. At my location I have a Vic computer, as well as a 64. The Vic is dedicated to digital work on RTTY and AMTOR, both HF and VHF. The C64 picks up all the other chores, such as word processing, entertainment, as well as the Packet terminal. Having only one 1541 disk drive to share between the two computers, puts me in a bind at times. I usually like to copy a file, and be able to download it right away. But this necessitates using the computer for two different functions. But by being able to share the disk drive between the two computers, allows me to keep the communication program running on one, and doing the downloading on the other. The best part of this all is that it won't cost you a dime.

This miracle is accomplised by taking advantage of the dual serial ports built into the 1541 disk drive. By plugging both computers into the same disk drive and "fooling" the drive into thinking that each computer is the only one hooked up, you can create a single data pool hooked up to two computer pipelines. First, set up both computers as normal. Next, plug both computers into the single 1541 disk drive. If one of the computers is a Vic-20, turn it on first as the C64 will tend to drown out the Vic's monitor. After both computers are on and showing "ready", turn on the disk drive. For your first experiment use a write-protected diskette with a few programs on it. Insert the diskette in the usual manner and type the following on either computer: LOAD"$",* Replace the * with any disk drive number that the drive is "not" currently set to. For example, when you first turn on your drive it is device number 8, so * could be a 9, 10, or 11. After hitting RETURN the computer will give the usual SEARCHING message and then it will "hang up" and not load anything. Do not be alarmed. Simply walk over to the other computer and type the following command: LOAD"$",= Replace

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SQUELCH TALES (continued from pg.1)

the = with the device number that the drive is currently set to, Usually 8. With a little luck an error message and blinking cursor will appear on both monitors after you hit RETURN. Assuming this happens merely retype the = command on the same computer and hit RETURN. Your = computer should now read the directory from the diskette in the drive. When the red light on the drive goes off, try typing LIST to verify that the directory was loaded. Now try the LOAD command on the * computer using the = device number in the command. It too should load the directory and list it on command. If by poor luck, only one computer was not "hung" after the inital = command continue to type the = command on whichever computer is not "hung up" at the time. Eventually you will succeed in getting both machines to respond with error messages and blinking cursors. Once both computers are functioning properly you can load the same program on both and access a shared file on the disk. Be careful that both machines don't try to access the drive at the same time as they will hang up and lose data.

$49... Keith

SOUTHNET

WIDE-AREA DIGIPEATERS

ATLANTA:	WB4GQX-1, KD4NC-1 (146.13/73)
MACON:	WB4GQX-2
SOUTH GEORGIA:	KF4JF-1
JACKSONVILLE:	WB4RCY-1
GAINESVILLE:	KF4TT-1
OCALA:	K4OZS
ORLANDO:	N4JWX
MELBOURNE:	N2WX-7
LAKE WALES:	KE4PM-1
TAMPA:	W1BEL, W9DVM
CLEARWATER:	KC2FF-7
STUART:	K4NTA-1
OKEECHOBEE:	WA4IYY-1
W. PALM BEACH:	WA4ARE-1
FT. LAUDERDALE:	W4LDP-1, WA1JOU
MIAMI:	W4NVU

FADCA VOICE NETS

REGIONAL (FLORIDA AND ADJOINING STATES): 3958 KHz Sunday at 0800 EST. NCS: K4NTA
BRANDON (TAMPA BAY AREA): 147.165 (+600) Sunday at 1930 EST. NCS: KF4EF
BREVARD COUNTY AREA: 147.060 (+600) Sunday at 2000 EST. NCS: N2WX
BROWARD COUNTY AREA: 145.270 (-600) Sunday at 2000 EST. NCS: K4GFG
SOUTHNET statewide frequencies:
  Primary LAN and calling frequency:145.010
  Local QSOs & file xfers:145.030 /050 /070 /090
  220 LANs (20 KHz bandwidth): 221.720, 221.780
  Narrow bandwidth linking (20 KHz b/w): 221.400
  Medium bandwidth linking (100 KHz b/w):220.570

SOUTHNET ELECTRONIC MAIL SERVICES

BULLETIN BOARD SYSTEMS

MOULTRIE, GA: WB4ZNW (W0RLI Mailbox)
STUART (EAST CENTRAL FLORIDA): K4NTA, WD4KAV
WEST PALM BEACH: WD4LHF
MIAMI: NK4K

NON-REAL TIME GATEWAYS

COMPUSERVE HAMNET: W4PCM, N2WX [75006,702], K4GFG
DIGITAL RADIO NET: K4NTA, N2WX, W1BEL

GOOD LAN OPERATING PROCEDURES (Courtetsy the GRAPEVINE)

1. TXD 8,
2. CWID OFF (PERM),
3. Beacon maximum of once per 30 minutes if at all.
4. Do not beacon through more than one digipeater unless mesage is important to all.
5. On 145.01 choose the most efficient route or direct connect. If direct connect possible, move to 03/05/07/09.
6. Use BBS at non-peak "chat" times.

BYTES FROM THE WRITE ONLY MEMORY

Ted Huf, K4NTA

The packet radio activities at the Orlando Hamfest were a big success. Jim Diggs, K4AHO and the gang in Orlando did a wonderful job of setting up all the activities and a big vote of thanks goes out to them.

On the night of Sunday March 15th we got our first thunderstorm of the year. The Stuart digipeater is located at a CATV tower site about 3/4 miles from my house. About 2200 hours while I was watching the Holmes - Bey heavyweight fight on TV, in rolls the storm. Sure we needed the rain, but we could have done with out the lightning! When the storm was over, I checked K4NTA-1 and sure enough, it was out. The next day on a visit to the site, I found that the TNC was dead. Replacing the blown fuse producted sparks from the board and another blown fuse. What I found was a very charred PC board under the bridge rectifiers. To make the story a little shorter, on Sunday I changed the call on K4NTA-0 to K4NTA-1 and moved the TNC from the Stuart BBS over to the digipeater site. George, WD4BRF, is tring to repair the TNC but it looks like most if not all of the chips are bad.

I felt that I had provided good protection for K4NTA-1, but perhaps not. The Cable Company has a very good ground system for its 450' and 180' towers and three earth stations. This ground system consist of some 40 - 50 sixteen foot copper weld gounds rods all bonded together with #1 gauge solid copper wire. The K4NTA-1 radio cabinet and coax is bonded to this ground system. In addition, I have a very large MOV device installed across the 120 VAC that powers the digipeater. Proper gounding and protection is very important to us in Florida, so here is a call for help from anyone expert in this field.

I hear from George, WD4BRF,that we should use caution with the R/S swithching power supplies. Geroge tells me that there is no overcurrent protection on the output and that a short on the output could (and did on his) cause the pass transistor to short. This did blow the fuse on the input but when the fuse was replaced, the output voltage was up to around 30 VDC. George suggests that the output be fused or current limited with a large resistor.

SOUTHNET MAP UPDATE, Version 1.1

The following stations should be added to your present map listing which appeared in the February issue of the BEACON.

CALL	NAME	CITY & STATE	LAN
WD4EPK	ERNIE	KEYSTONE HTS,FLA	GAINESVILLE
KF4JF	BBS	HAHIRA,GA	SO. GEORGIA
WD4ZNW	BBS	MOULTRIE,GA	SO. GEORGIA
WE4W	RICK	TAMPA,FL	TAMPA
KF4CW	ERNIE	TAMPA,FL	TAMPA
W4MJX	FRED	APOLLO BEACH,FLA	TAMPA
N4IXU	BILL	BRANDON,FLA	TAMPA
K4PT	ED	SUN CITY CENTER,FL	TAMPA
WD4MAF	GLEN	PANAMA CITY,FLA	PANHANDLE
WD4FJE	VIRGINA	PANAMA CITY,FLA	PANHANDLE
WA4OPA	JOHN	MAITLAND,FL	ORLANDO
WB4LOQ	JOHN	TALLAHASSIE,FLA	TALLAHASSIE
N4FHO	RON	PANACEA,FLA	TALLAHASSIE
KB4CIA	RICK	PORT CHARLOTTE,FLA	FT. MEYERS
KB4CIB	TINKER	PORT CHARLOTTE,FLA	FT. MEYERS
WD5EBW	ANDY	FT. MEYERS	FT. MEYERS
KF4IN	DAN	SATELLITE BCH,FLA	MELBORNE
N4AJH	JERRY	MELBORNE,FLA	MELBORNE
WD4KAV	BBS	STUART,FLA	STUART
WA2EXQ	LLOYD	FT. LAUDERDALE,FL	FT. LAUD.
WA1JOU	DIGI	FT.LAUDERDALE,FL	FT. LAUD.
KB4AR	BILL	PENSACOLA	PANHANDLE
KB4MD		PENSACOLA	PANHANDLE
WA5MPI	WALT	GAUTIER,MISS	MISSISSIPPI
KB4JHV	MIKE	MOBILE,AL	MOBILE
W4ATK	JIM	BIRMINGHAM,AL	BIRMINGHAM
K4HAL	HENRY	BIRMINGHAM,AL	BIRMINGHAM
W4HFU	FRANK	HUNTSVILLE,AL	HUNTSVILLE
WA4YQT	TOM	ENTERPRISE,AL	SE ALABAMA
KE4PM-1	DIGI	LAKE WALES,FL	SEBRING

CORRECTIONS TO MAP:

WB4EXN's name is Tony not Bill, as listed in the Gainsville LAN.
W4SS should be listed in the West Palm Beach LAN not the Ft. Lauderdale LAN.

FADCA sponsors the SOUTHNET packet network.

NEWS AND VIEWS

Gwyn Reedy, W1BEL

The past two months have been hectic on the hamfest circuit. Since the Miami Hamboree the first weekend of February, I have attended hamfests all but two weekends. The fests included (in addition to Miami) Fort Meyers, Hernando County, Orlando, and Fort Walton Beach. I wish to thank each of the many persons at these various locations that have helped make successful packet demonstrations possible.

The reception for packet presentations has changed considerably since last year. Where formerly a swap table for dispensing literature and setting up a packet terminal had to suffice, the rule now is a place on the forum schelule. The Clearwater ARRL Suncoast Convention is a good example. In 1983 a notice was placed on a bulletin board in the lobby announcing a packet seminar to be held later by the as yet unformed FADCA. A year later we rated an hour seminar and a display table in the high-traffic ticket area. This coming season, we will have two seminar rooms continuously for two days, and the theme of the convention will be digital communication.

Another event is being planned that is a first for Florida, a packet hamfest. As in the fashion of digital repeater becoming digipeater, I will coin the term, packetfest. Our packetfest is named the SOUTHNET Packet Conference and it will be held at the University of Florida at Gainesville on 15 and 16 June. The University facilities and all the local arrangements are courtesy of the Gator Amateur Radio Club, the Co-sponsor of the event with FADCA. We named it SOUTHNET Packet Conference to widen its appeal to packeteers in the neighboring states, and to give it a businesslike, technical air. We intend to make it a full two days (and maybe Friday evening too) of interest to packeteers of all levels of technical ability. There will be technical meetings for persons involved/interested in linking; protocols, digital hardware and RF hardware, frequency coordination, emergerncy communication, satellite operations, and many other areas. A special feature will be clinics to allow hands-on experimentation with new packet equipment, computers, set-up and repair of TNCs, interfaces to computers and radios, Xerox 820 boards etc. There is a lot of planning and hard work to be done, but this should be an affair not to be missed by any serious packeteer. See the letters column for additional details, and volunteer your help.

The first formal meeting of the FADCA Board of Directors was held in conjunction with the Orlando Hamfest. Bylaws and Articles of Incorporation were reviewed and approved, officers appointed, and general guidelines established for the conduct of FADCA affairs in this time of rapid growth. The next meeting will be at the SOUTHNET Packet Conference in June. As soon as the incorporation is finalized, an election of directors will be held. Some appointed directors may not run for election due to other commitments, so if you are interested in serving as a Director, make your feelings known.

Sunday, March 24th, the Lake Wales digipeater was installed. Sam Bayne, W4KUM, had offered tower space at the Miami Hamboree in 1984. A test digipeater installation was made in the following spring with excellent results. Efforts since that time to make a permanent installation came to a focus this month. The Lake Wales Repeater Association furnished an antenna for rebuilding Feb 24th. KF4EF disassembled the antenna and KF4LG glass beaded the elements. N4ZQ reassembled the antenna and hauled it and the 320 ft of 7/8 hardline to the site. K4NTA donated the hardline. KE4PM and N4EIE did the tower work and K4AHO worked on the GLB board all day. When the board would not respond properly to the radio, he installed his TAPR board for an interim stay. I watched and generally got in the way of the work party. The installation took about eight hours plus travel. The four bay antenna is located at about 300 feet (450 ft above sea level). The rig is running 10 watts output and is easily readable on both coasts. The only problem is that the antenna is mounted in close proximity to the antenna of W4KUM's RTTY MSO antenna, and when the MSO is transmitting, the digipeater is deaf. The antenna was not planned to go in its present location, but was mounted there temporarily while the hardline was pulled up the tower. Then winch trouble happened and the termporary location became semi-permanent. Options for improving the situation are being considered.

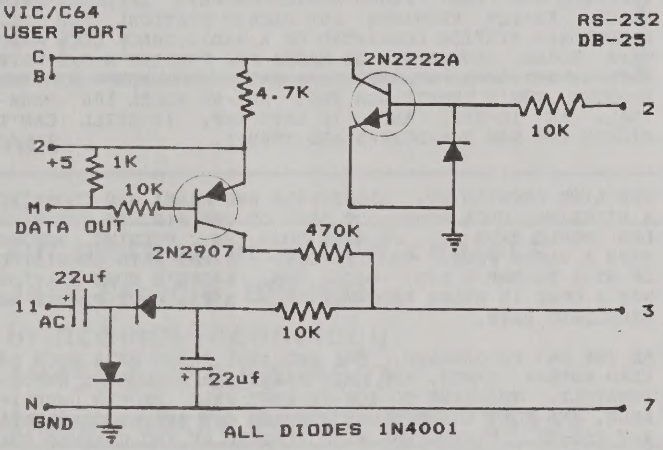
RS-232 CONVERTER FOR VIC/C64

Keith O'Brien N4ZQ
203 Faithway Drive, Seffner, Fl. 33584
(813) 685-3009

In response to the call for a simple interface between a Commodore computer and a TNC, we offer the following. The circuit shown is an RS-232 converter for the Vic/C64. It can be used with a modem, printer or other RS-232 device. It is much simpler than the one described in the August 1982 COMPUTE, and works just as well. Most RS-232 communications can be done with only three wires so I did not include converters for handshaking signals. The transistor converters are similar to the ones used in older Ohio Scientific computers.

Some RS-232 devices will have to have the wires to to the DB25 connector pins 2 and 3 reversed. If it does not work one way, then try reversing the wires. Putting a switch in to do the reversing will aid the operation.

The 12 pin dual edge connectors that are used on the computer side are hard to find. I found mine at the hamfest. You could make one by trimming down a 22 pin dual edge connector, if you're desperate enough. Happy building... Keith



THE JUNKBOX

FADCA has obtained over 100 8530-A SCC chips. These ICs are used on the FADboard with the Xerox 820 to give a dual channel HDLC output. These high speed 4 MHz parts are hard to find, and nowhere else will you get them for $20.00 postpaid. Order from FADCA at the address on the back cover. The order delivery is promised any day now..

WD4FAB has a 16 element KLM 2 meter beam for sale. Call Dick at (305) 644-9008 or write to Dick Jansson, 1130 Willowbrook Trail, Maitland, FL 32751.

FADCA has several surplus FAA VHF transmitters that may be suitable for digipeater amplifiers. They are rated at 50 watts output, but use tubes (4X150s) capable of much higher power in packet service. They are HEAVY. Contact Jim Eberwine, W4APV. 8118-37th Avenue North, St. Petersburg, FL 33710 (H) (813) 347-0942, (W) (813) 539-3543.

CURT PARRISH, K4TL
Electronic Kit Assembly & Repairs
306 W. Amherst Avenue
Melbourne, Florida 32901
305-723-8659

PACKET RADIO LINKS MARCH OF DIMES "WALKAMERICA"

MARCH 23RD HOSTED THE FIRST LOCAL PUBLIC SERVICE EVENT IN SOUTH FLORIDA KEYED TO PROVIDE INTERCOMMUNICATION BETWEEN THE THREE MARCH OF DIMES FUND RAISING EVENTS, SO THAT THE REGIONAL DIRECTOR COULD GET INSTANT STATISTICS. THE WALKS RAISE MONEY TO BE USED IN CHILD BIRTH DEFECT RESEARCH, THE MAIN THRUST OF THE MARCH OF DIMES SINCE THE POLIO VACCINE WAS INVENTED. EACH WALK HAS THOUSANDS OF PEOPLE PARTICIPATING, WITH ELABORATE LOGISTICS COORDINATING IT ALL. THE MIAMI WALK IS CO-ORDINATED BY 70 AMATEUR RADIO OPERATORS, PROVIDING COMMUNICATIONS FOR ALL ASPECTS. SIMILAR ARRANGEMENTS ARE FOUND IN FT. LAUDERDALE AND WEST PALM BEACH.
KI4T-1 WAS SET UP IN THE DADE COUNTY OFFICE OF EMERGENCY PREPAREDNESS COMMUNICATIONS VAN, CONSISTING OF A 40 WATT TRANSCEVER, AN AEA TNC, A TRS-80 MODEL III COMPUTER, AND AN EPSON PRINTER. THE VAN, A CONVERTED ARMY DEUCE-AND-A- HALF TRUCK, HAS A 40 FOOT CRANKUP TOWER, ON WHICH A COMMERCIAL VHF FIBERGLASS GAIN ANTENNA WAS PLACED. ALL OF THE ABOVE EQUIMENT IS OWNED BY DADE COUNTY, AND COMPRISES THE COUNTY'S PACKET RADIO STATION, AVAILABLE FOR ALL AMATEUR PUBLIC SERVICE AND EMERGENCY COMMUNICATIONS EXCERCISES.
AT THE FT. LAUDERDALE END WAS WB4MMP, AS BASE STATION PACKET, AND TOM, K4GFG MOBILE PACKET. IN WEST PALM BEACH, KB4IQM PROVIDED THE PACKET STATION. THE FT. LAUDERDALE STATION CONSISTED OF A RADIO SHACK COCO AND TAPR BOARD, AND A 30W GE MASTR-PRO FEEDING A 5/8 WAVE WHIP ON TOP OF A MOTOR HOME. K4GFG'S MOBILE STATION SPORTED TOM'S TRUSTY GLB TNC, TRS-80 MODEL 100 TERMINAL, AN IC-2AT, AND 70 WATT AMP. (I STILL CAN'T FIGURE OUT HOW TOM DRIVES AND TYPES).

THE LINK BETWEEN FT. LAUDERDALE AND MIAMI WAS CLOSE TO A PIPELINE, ONCE W4NVU GOT BACK ON THE AIR. AS MURPHY'S LAW WOULD HAVE IT, IT WENT DOWN THE EVENING BEFORE WITH A BLOWN FUSE. THE FT. LAUD - MIAMI PATH CONSISTED OF 4T-1 TO MMP V NVU, GFG. TOM, K4GFG'S HOME STATION WAS A GOOD 10 MILES FROM THE WALK SITE, BUT PROVED AN EXCELLENT PATH.

AS THE DAY PROGRESSED, MMP AND 4T-1 PASSD DATA SUCH AS LEAD RUNNER TIMES, AND WALK PARTICIPANT COUNTS. UNFORTUNATELY, THE LINK TO IQM IN WEST PALM PROVED UNRELIABLE, AND MOST CONNECTIONS RETRIED OUT BEFORE GOOD DATA WAS PASSED. KB4IQM WAS ALSO PLAGUED BY TNC CRASHES DUE TO LINE VOLTAGE FLUCTUATIONS. WELL, THAT'S HOW WE LEARN.

THE EXCERCISE TAUGHT US A NUMBER OF THINGS:

1. DEFINE YOUR OBJECTIVES FOR PACKET RADIO, RECOGNIZING ITS STRENGTHS AND WEAKNESSES. USE IT FOR NON-REAL-TIME, STORE AND FORWARD COMMUNICATION. USE IT TO FREE UP AN OPERATOR TO DO OTHER THINGS, SUCH AS VOICE COMMUNICATIONS. THEREFORE,
2. USE A PRINTER FOR PUBLIC SERVICE EVENTS. PACKET EXCHANGES SHOULD ESSENTIALLY BE ONE-WAY. STATION A LEAVES DATA FOR STATION B. LATER, STATION B SENDS DATA TO A TO BE PRINTED OUT AND USED AS NECESSARY. NOW THE ABOVE WORKS ONLY IF,
3. ALL DIGIPEATERS USED HAVE GOOD THRUPUT WITH ONE ANOTHER. A LINK WITH MANY RETIES ONLY FRUSTRATES THE EFFORT, AND IN ORDER TO INSURE GOOD THRUPUT,
4. ALL DIGIPEATERS IN HIGH INTERMOD ENVIRONMENTS MUST USE BAND PASS CAVITIES FOR INTERMOD FILTERING.

WHILE YOU DON'T HAVE TO RUN A MARCH OF DIMES EXCERCISE TO LEARN THE ABOVE, IT TAKES A GOOD PUBLIC SERVICE EVENT, WHERE PEOPLE OTHER THAN YOURSELF ARE RELYING ON THE INFORMATION TO HAMMER HOME THESE POINTS. WHILE WE ARE LESS CRITICAL WITH PACKET PERFORMANCE FOR OUR OWN PERSONAL USE, WHEN OUTSIDERS EVALUATE ITS PERFORMANCE, THEY AREA LOT LESS FORGIVING OF ITS INADAQUACIES.

NEXT YEAR WE WILL TAKE THE ABOVE INTO CONSIDERATION, PASS A GREAT DEAL MORE DATA, AND HAVE IT GET TO ITS DESTINATION A LOT MORE EFFICIENTLY. AND MAYBE ALONG THE LINE,THE SOLUTION TO A CHILDHOOD BIRTH DEFECT WILL HAVE BEEN HELPED.

BY JOEL I. KANDEL, KI4T

To: All
From: Pete WB9FLW
Subject: TAPR TNC & ENCLOSURE FOR SALE

A friend of mine Jim K0SBH has a mint TAPR TNC in the Gucci cabinet for sale he is asking $300.00. If interested you may contact him after 6:30 P.M. at (314) 946-2058.

9600 BAUD MODEMS FOR GATOR-ONE

Tom Kneisel K4GFG
1600 S.W. 115 Ave., Davie, Fla. 33325

Steve Goode, K9NG, has finished his 9600 baud modem design, and plans to present a paper on it at the San Francisco conference. The modem is designed to work with the Hamtronics FM-5 or similar transceivers, and FADCA is planning to use them in our GATOR ONE linking network on 220 Mhz.

I presented some details of Steve's design at the Orlando Hamfest, including the required modifications to the FM-5 and Steve's performance measurements. The modems have been field tested in Chicago, and appear to be working well. TAPR plans to provide a PC board (and maybe a complete kit?) for the modem, but the availability date is not yet known.

In the meanwhile, K4OZS is wirewrapping two modems which will be tested on the bench and then in the field here is south Florida. If you would like to wirewrap a modem for your GATOR ONE site instead of waiting for the PC board, see me for a schematic and parts list.

Another alternative for experimentation at 9600 baud is to use a telephone modem. Four ICC 96 MM modems have been donated to FADCA by Racal-Milgo here in Ft. Lauderdale. These are 9600 baud, 8 phase, 2 amplitude modems which work within the 3 Khz audio passband. I have bench tested them with the Hamtronics R220 receiver, and they work fine, although require about 10 dB more RF signal than the K9NG design. If you have a solid RF link, why not try them? See either W1BEL, K4NTA, or myself to obtain a pair of these modems. More are available if needed.

MODEM For VHF/HF Packet

FADCA is producing a modem which will satisfy a great many needs in the Packet Radio community. This modem can be built to be either 1200 baud with a 1KHz shift (VHF standard) or a 300 baud with 200 Hz shift (HF standard) using the Bell 103 originate tones. The main components of the modem are the XR2206-XR2211 chip set. The circuit board measures 1 1/2 x 3 inches small which allows it to fit almost anywhere. It also features a selectable Carrier Detect level of 0 or 5 volts DC to make it easy to interface with your system. If your packet rig is also used for your regular voice contacts, the modem has an audio mute circuit which, when enabled, will turn off the tones.

The modem kit as described above is a mere $8.95 which include shipping and handling charges. Each order will include a finished (drilled & plated) PC board, parts placement diagram, parts list for both the 300 baud and 1200 baud versions, schematic, and a tune up procedure. If you are interested, send $8.95 per board in check or money order to the designer and producer:

Jerry Quimby (N4AJH)
2677 Hereford Rd.
Melbourne, FL 32935

Get yourself a super modem and help to support FADCA at the same time. I will be glad to help in any way I can.

73's Jerry (N4AJH)

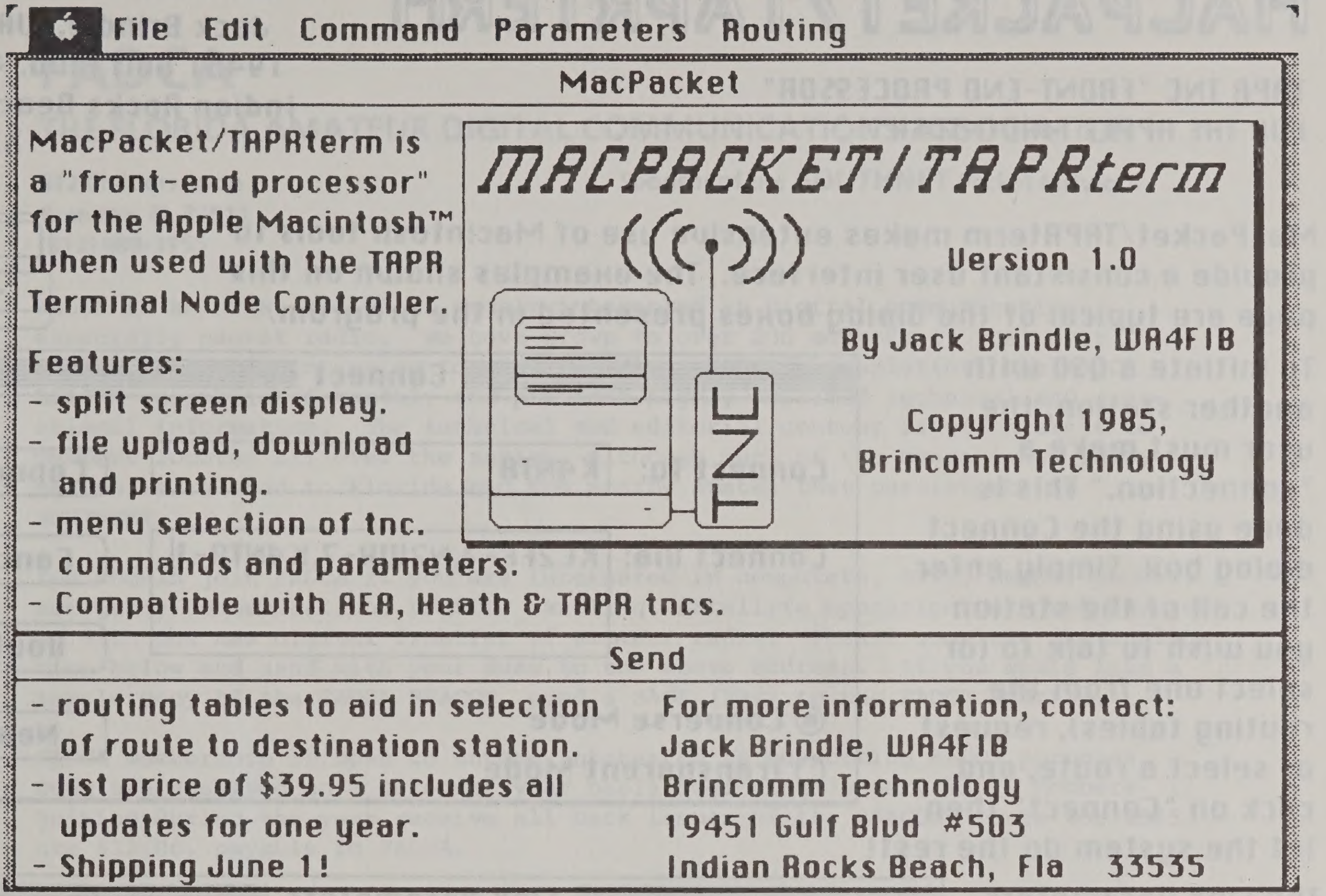
BROWARD PACKET NEWS

Tom Kneisel K4GFG
1600 S.W. 115 Ave., Davie, Fla. 33325

Check-ins are growing on the local FADCA voice net on Sunday evenings (145.27 Mhz 8pm). Many new calls are showing up, and requests for packet literature are frequent. Several new stations are working on TNC's and we expect to hear them on the air soon.

The W4LDP-1 digipeater is off the air as of this writing. If it is not back in service by the time you read this, use WA1JOU to bridge the gap between Miami to West Palm. To the south, W4FQM reports his Hollywood digipeater will go on the air with the call WA4WHD-1 as soon as he receives his PKT-1 back from AEA. To the north, WA2HFA reports that the IBM club has voted funding for a TAPR board. Bob says they already have the RF gear for their digipeater site at 80 feet in Boca Raton.

The next local packet radio demonstration will be at the Hollywood Amateur Radio Club meeting on April 15, Hollywood Courthouse, at 8 PM.



MacPacket/TAPRterm is a "front-end processor" for the Apple Macintosh™ when used with the TAPR Terminal Node Controller.

Features:
- split screen display.
- file upload, download and printing.
- menu selection of tnc. commands and parameters.
- Compatible with AEA, Heath & TAPR tncs.
- routing tables to aid in selection of route to destination station.
- list price of $39.95 includes all updates for one year.
- Shipping June 1!

Version 1.0

By Jack Brindle, WA4FIB

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For more information, contact:
Jack Brindle, WA4FIB
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19451 Gulf Blvd #503
Indian Rocks Beach, Fla 33535

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We support FADCA!

Packeteers...

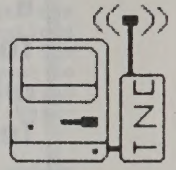
Free yourself from the TAPR interface! Let your computer take care of the TNC command functions while you enjoy what you like most, Packeting! MacPacket/TAPRterm turns an Apple Macintosh into a "front-end processor" for TAPR compatible TNC systems to handle TNC functions and parameters. MacPacket/TAPRterm remembers connection routing to other stations so you don't have to! Simply type in a destination station, click "Route", then "Connect" and sit back while the Mac & TNC do the rest! Wish to send MacPaint pictures? No problem, just select "Send" along with the file to send. An exact copy of the picture will be created at the receiving station with the same name and characteristics as yours! This goes for programs too! To adjust TNC parameters, use the TAPRterm menus to select, edit, and save the parameter.

MacPacket/TAPRterm is not just a terminal emulator. It has been designed specifically for the Macintosh - TAPR TNC system to help get better use of your packet station! Conveniences like routing tables make MacPacket/TAPRterm a joy to use! This system was designed by packeteers for packeteers. Like the Macintosh itself, once you use TAPRterm, nothing else will compare!

MACPACKET/TAPRTERM

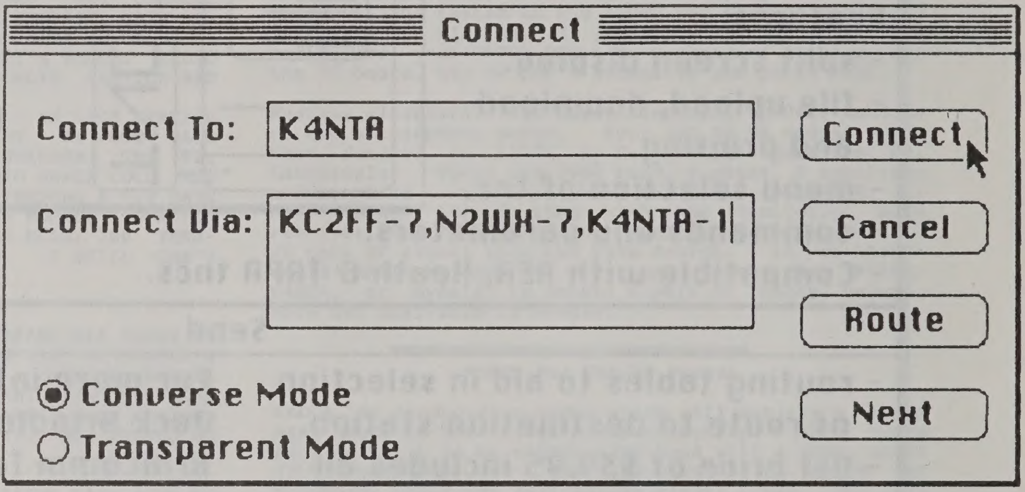
Brincomm Technology
Jack Brindle, WA4FIB
19451 Gulf Blvd. #503
Indian Rocks Beach, FL
33535

TAPR TNC "FRONT-END PROCESSOR"
FOR THE APPLE MACINTOSH™



MacPacket/TAPRterm makes extensive use of Macintosh tools to provide a consistant user interface. The examples shown on this page are typical of the dialog boxes presented in the program.

To initiate a QSO with another station, the user must make a "connection." This is done using the Connect dialog box. Simply enter the call of the station you wish to talk to (or select one from the routing tables), request or select a route, and click on "Connect" then let the system do the rest!

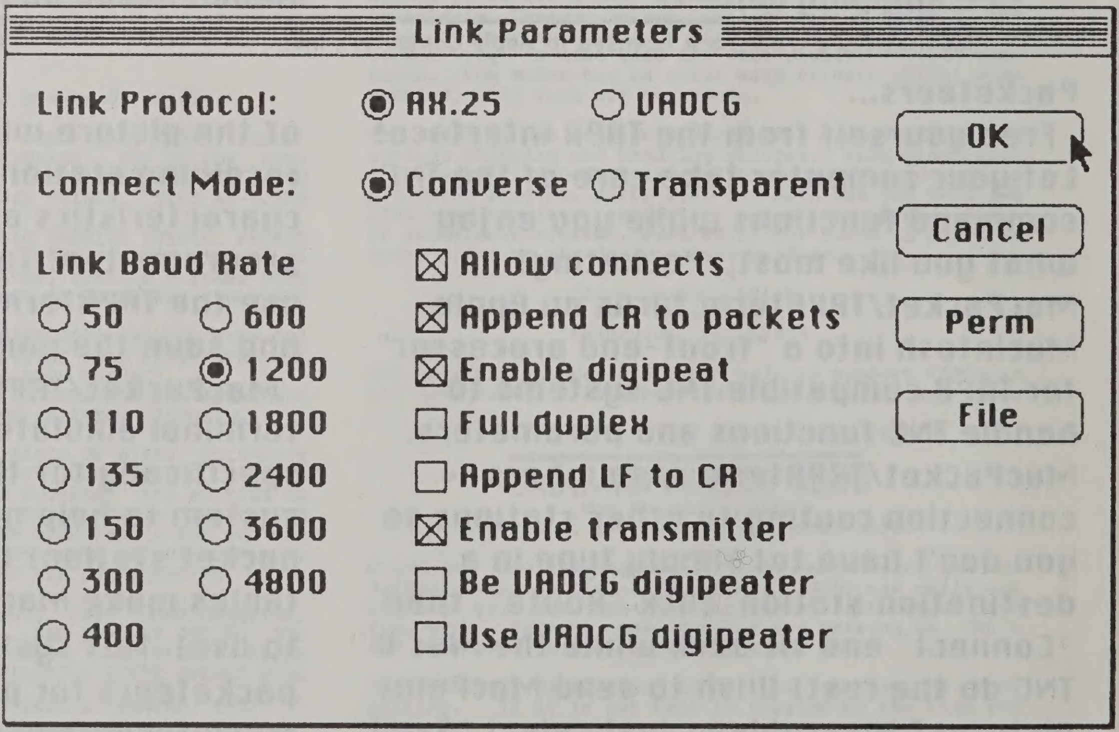


Connect To: K4NTA

Connect Via: KC2FF-7,N2WH-7,K4NTA-1

● Converse Mode
○ Transparent Mode

The Link Parameters dialog box is typical of the dialogs used for manipulating TNC parameters. The Link baud rate selection gives the user a choice of several link data rates, but only one choice at a time is allowed. "Check boxes" are used to indicate on-off type parameters, with a check shown for "on." The user has the choice to accept the new settings by clicking "OK" or rejecting them with the "Cancel" button. "Perm" programs the new choices into TNC non-volatile memory, while "File" changes the MacPacket/TAPRterm initialization setup file.



Link Protocol: ● AX.25 ○ VADCG

Connect Mode: ● Converse ○ Transparent

Link Baud Rate

○ 50 ○ 600
○ 75 ● 1200
○ 110 ○ 1800
○ 135 ○ 2400
○ 150 ○ 3600
○ 300 ○ 4800
○ 400

☒ Allow connects
☒ Append CR to packets
☒ Enable digipeat
☐ Full duplex
☐ Append LF to CR
☒ Enable transmitter
☐ Be VADCG digipeater
☐ Use VADCG digipeater

FADCA

THE FLORIDA AMATEUR DIGITAL COMMUNICATIONS ASSOCIATION

812 Childers Loop
Brandon, FL 33511
(813) 689-3355

Sponsor of the SOUTHNET Packet Network

FADCA is an organization of people interested in digital communications, especially packet radio. We have grown to over 200 members is just over a year, and are continuing to grow rapidly. FADCA's newsletter, the FADCA BEACON is published monthly and provides highly aclaimed technical and operational information. The technical and editorial content is of interest to members located all over the nation, although much of the operational information is related to Florida and the nearby states that participate in SOUTHNET.

You should join FADCA if you are interested in computers, RTTY, AMTOR, packet, emergency communication, traffic handling, satellite operation, or just keeping up with the new digital frontier of amateur radio. Please complete the application below and send with your dues to the above address. If you would like a sample copy of the FADCA BEACON, send a SASE (39¢) to the FADCA address.

FADCA membership is open to anyone interested in supporting FADCA purposes. Dues are assessed on a calendar year basis beginning January 1st. Members joining during the year receive all back issues of the BEACON. Dues for 1985 are $12.00, payable to FADCA.

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STREET
ADDRESS: ____

CITY: ______________________ STATE: ________ ZIP: ________

HOME
TELEPHONE: (_____) _____ - ______

WORK
TELEPHONE: (_____) _____ - ______

ARE YOU NOW OPERATING: PACKET? AMTOR: RTTY: OTHER SPECIALIZED MODES?

WHAT EQUIPMENT ARE YOU USING: ______________________________

WHAT ARE YOUR INTERESTS IN DIGITAL COMMUNICATION? ______________________

____

A NON-PROFIT ORGANIZATION FOR RESEARCH, DEVELOPMENT, EDUCATION, AND PUBLIC SERVICE.

EMERGENCY COMMUNICATIONS

Steve Crowley, N4AIY
614 Sanfield St, Brandon, FL 33511
(813) 689-9714

This month I present a few emergency communication related articles from other locations. Please write to me with your news and ideas for this column.

The Pierce County (Washington) Emergency Search and Rescue Council has purchased three AEA packet boards for use in their operations. To back up the TNCs, they have also purchased two KayPro 2Xs and a Radio Shack Model 100. The packet stations will be operated on 220 MHz equipment with the main station being located in the Tacoma County City Building.

John, W7KKN, has helped Tom, W7DRT, put together the stations. A second station, located in a motor home, will be used during Pierce County searches. The third station will be a completely portable unit that can be taken to a mountain tob by four wheelers or helicopter. Its primary function will be to provide a link between the search site and downtown Tacoma.

In the past, ESAR has been concerned with the security of traffic on amateur bands during searches. The press has learned that a great deal of information can be picked up by listening to ham operations on two meters. It is expected that packet will provide a measure of security like none they have enjoyed before.

....reprinted from Zero Retries, NAPRA newsletter.

Fm: Bill Tubbs KB6JM 70725,1422
To: HamNet*SYSOP Scott W3VS 76703,407 (X)

22-Mar-85 16:12:59 The Sacramento County Office of Emergency Operations plans to have a TNC online by the end of this summer, and is coordinating with the State Office of Emergency Services to establish links and work out details for use of packet systems in emergency and disaster situations. The plan is to have packet 'teams' within the County's newly revitalized RACES program and ARES, which would set up communications at appropriate sites during drills or actual emergencies. A good framework should be in place over the next year to accomodate the projected growth in this area.

Georgia Packet Networking Agent Agreement

Submitted by Bill Crews, WB2CPV

On February 9, 1985 at the First Georgia Packet Radio Coordinating Conference held in Macon, Ga, a committee was formed to be responsible for network coordinating efforts in the stste of Georgia. The committee, consisting of Dennis, WB4GQX, and Wayne, WD4LYV, is named the Georgia Packet Networking Agent. The state was divided into two parts along a line formed by I-16 from Savannah to Macon, continuing West along Route 80 to Columbus. WB4GQX will be responsible for North Georgia and WD4LYV will be responsible for South Georgia. When packet activity increases in particular areas of the state, directors will be appointed to represent those areas. The following priorities were established:

1. Coordinate high site, unattended digipeaters on a statewide basis using 145.01 and assist where possible with technical expertise, software, and on a case by case basis, financial or equipment aid.
   a. Pursue offers of possible sites in the Macon area due to its strategic location in the networking plan.
   b. Monitor efforts in the Valdosta area in expectation of a permanent digipeater installation.
   c. Have WD4LYV pursue several potential high altitude tower sites in the Southern part of the state for digipeaters.

2. Establish 220 MHz links between statewide LANs and also coordinate linking frequencies with Florida and South Carolina. 220 MHz was chosen for linking because the majority of link activity on the East coast is on that band. Also the current R & D with 9600 boud modems is being done on 220 MHz.

3. Form a committee to search for unused RF repeater pairs for possible utilization on packet.

CONNECT....

The Beginner's Column

DON DEEM, KB4LLO

This month's column will be concerned with letters from our readers, and assisting them with their problems. As you will see, these letters indicate the need to have a centralized source of information that would be of interest to beginners and potential FADCA members. At this time we would ask each of you that are on the air and operating to drop us a line, giving us the following information:

Make and model of radio used in your packet system.
Make and model of the TNC you are using.
Make and model of the computer you are using.
Source of the software you are using and a copy if possible.
A schematic of the interface cables used.

You might also include a description of any problems or pitfalls you are aware of, and your suggestions.

We also ask for your suggestions as to the information that you feel should be included in our data base, or that you feel should be excluded.

Here are two letters which illustrate the need for this information.

Gentlemen:

This is a response from a previous QSO with A.R.S. WW4V, Jerry, who has informed me of your progress in 'Packet-Radio'. Our group here in Massena is rather small both community wise as Amateur wise. Our means of communication or should say research concerning 'Packet-Radio' has been a bit limited. Our group consists of ten Amateurs currently in the construction stages of packet, and hope to soon be on the air with the systems.

We are currently constructing the 'Vancouver' board, and Tom, K2JPM is writing the software for the VIC 20. Guess our major concerns are that of being in sync with the rest of the Amateur world in respects to protocol etc...

Therefore you will find enclosed some funds to hopefully cover postage for your current newsletter, which we would like to use to help bring us up to speed with some of the other experimenters. Would also request any further information which you may be able to make available to us concerning various boards, protocols, and experiments which you may have already completed.

Thanks for your time and cooperation, and looking forward to hearing from your group.

73, de NA2B, Charlie

P.S. Questions:
1. Which boards are you using?
2. Which computers are you using?
3. Which software are you using?
4. Protocol?

FADCA:

Can you supply me with a laundry list of parts and sources to get my 2-meter operating on packet? i.e. which is best, simplest, most compact. My experimenter days are pretty much past due to the press of other activity.

73, Curt

EXCERPTS FROM OTHER PUBLICATIONS

ITEMS FROM DRNET

(DRNET (Digital Radio Network Design Net) is an electronic messaging system linking various centers of packet activity, courtesy of the NJ Institute of Technology.)

M 23844 Lyle Johnson (WA7GXD,2973) 3/19/85 10:39 PM

Gwyn,
We are now backordered 30 deep on TNCs. When we have some, we'll see you get some!!! I am also trying to arrange to bring some to San Francisco...
Look forward to seeing you there! More later... and keep up the ggod work there in Fl. You guys are doing great and benefitting the whole amateur packet community by your efforts and generosity.

Lyle

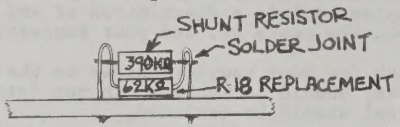
NON - ELECTRONIC MAIL

Dear Gwyn:

Thanks for the latest stupendous issue of the FADCA BEACON, it makes for a lot of good reading.

I have recently modified two of the Radio Shack 277-1016 switching power supplies according to the information received from RMPRA. On one point, R18, I found what I consider a better way of doing the modification. A couple of other points are also noted herein for publication in the BEACON.

In my experience with non-standard resistor values, it is always much easier to use parallel values rather than series values, although it is more of a mental strain. If a 62 kilohm 1/4 watt resistor is initially installed according to the method shown below, life will be easy:



By forming the leads of the 62 kilohm resistor, it makes a convenient pair of terminals for the piggybacked shunt resistor, in my case that value was 390 kohm. It is also easy to change that shunt resistor.

The next point is R7. It is definitely not a 1 watt power resistor, but a 1/2 watt, 240 ohm. If one does not have a 120 ohm replacement value, that is not critical, just as long as a lower value is used for more drive. A value of 150 ohm certainly is not out of order, and at a 1/2 watt rating it will easily go into the place provided for R7.

In my intended applications with a TAPR TNC in a "black box", there is absolutely no need for the on-board power control switch, S1. There is a need for three more lands to mount the series power isolation diode used when providing a battery back-up power for the AC supply. Removal of S1 by disassembly of the head, cuting the phenolic board to break it into disappearing pieces, and finally desoldering the switch pins will effectively remove S1. The lands for the positive lead are then used to mount the series diode and the red wire to the rectifier supply on the TNC. Using the White negative wire to jump the two negative pads together at S1 provides the negative lead for the rectifier supply. The original lead locations are used for the red and black leads to the battery back-up power supply.

73,
Dick, WD4FAB

Dear Gwyn:

Many thanks for your letter of February 13th, and for your membership contribution. We are also very grateful to FADCA for your strong support of the Florida Repeater Council.

On behalf of the Florida Repeater Council, I would like to propose that FADCA be designated immediately as the packet network coordination body for the state of Florida. The Florida Repeater Council will, in effect, delegate to FADCA the authority to coordinate and manage the following areas:

1. Packet frequencies and band usage.
2. Packet channel loading.
3. Siting of digipeaters, gateways and other common-use packet network nodes.

In addition, we encourage FADCA to create and maintain its own database of digipeaters and other assignments. We would like you to periodically send the Council a hard-copy of this database, in order that the Florida Repeater Council can include packet systems in its official repeater listing.

I am enclosing a sample FRC coordination record sheet for your perusal. This may be of assistance to you in the development of a database. Of special importance are trustee name, address, and telephone number; we consider these a prerequisite for coordination.

The Florida Repeater Council will continue to protect frequencies in all amateur bands for packet and digital communications in a manner consistent with the existing band plan and with other modes.

When FADCA requests protection of a new packet frequency, we will analyze the request for potential conflicts and interference problems. In the event of a problem, we will inform you as soon as possible. If there is no apparent likelihood of conflict, we will publish a proposal for protection of the new frequency in the Council's monthly column in Florida Skip, with a one to two month comment period. Assuming that no adverse comments are received, we will then announce protection of the frequency.

As an example, we have just proposed to reserve 145.000 MHz as a vacant guard channel. We anticipate announcing protection of the 2 meter and 220 MHz frequencies requested by FADCA in the near future.

Should FADCA receive a complaint of interference on any packet frequency, please contact the Council. We will work with you as closely as is required in order to correct the problem.

It is our view that if a packet or digital system coordinated by FADCA (in its capacity as delegate of the Florida Repeater Council and as packet coordinator) is subjected to harmful interference by an uncoordinated system or by a station operating in another mode, then:

1. The interfering station has primary responsibility for correcting the interference.
2. If the interfering station is operating in another mode, and there is a consistent pattern of interference, a presumption may exist of deliberate and malicious interference to the packet or digital station.
3. In all cases, those packet frequencies which we have protected should be kept loaded to the maximum extent practicable by packet users, in order to establish channel occupancy.
4. As mentioned above, FADCA and the Florida Repeater Council will work together to resolve interference problems. An uncoordinated digipeater will be a FADCA responsibility, whereas an interference source using another mode will be a joint FADCA/FRC matter.

We would like you to keep us informed of all FADCA policy developments concerning digipeater coordination activity, in order that we may be constantly "in sync" on issues of mutual interest. It is most desirable that our two organizations speak with one voice on matters affecting us both.

My colleagues and I on the Florida Repeater Council are delighted to work with FADCA, and with you and Ted personally, to our mutual benefit. I am convinced that our joint efforts will greatly strengthen Amateur Radio in the state of Florida.

Best 73's
Adam M. Farson, VE3DGY
President
Florida Repeater Council, Inc.

The Gator Amateur Radio Club
5010-135 North Waldo Road
Gainesville. Florida 32601

Gwyn,

On March 14th and 15th the Gator Amateur Radio Club and the Gainesville Amateur Radio Packet Society demonstrated packet radio to the public at the University of Florida Engineers' Fair. On display was a TAPR TNC linked to the University's VAX and Harris computers via KF4TT-1. Unfortunately the band did not open during the fair's hours of operation, and the only QSOs were held with Bob, WD4BIW, Scott, KF4TT and Thornton, KU4F. There was a great deal of interest expresed in Packet and Amateur Radio in general.

Saturday March 30th is the date set for the "Second Annual Never Again to be Repeated Gainesville Swapfest". We expect tens of vendors this year from as far away as Waldo and Archer. This is the second edition of last years "We Won't ever do this again Swapfest" held during the '84 Engineers' Fair. There is free admission, no table fees (no tables), and no door prizes (no doors). You just drive in, open your trunk, and start trading. The fun starts at 9:00 AM and runs until whenever. The talk in frequency is 146.910. The Banquet is to be held at Wendys on Archer Road, Saturday afternoon. Reservations are not required.

Continued

The Gainesville digipeater, KF4TT-1, recently received a new power amplifier and is now outputting 140 watts. Links with KF4JF-1, KC2FF-7, and N2WX-7 are possible with slight band openings. TT-1 will soon be moving to its new 400 foot site in Melrose, abvout 20 miles to the East of Gainesville. The new location promises reliable links between N2WX-7 and WB4RCY-1. TT-1's old site on KU4F's tower is expected to become the local Gainesville digipeater as soon as another packet board can be found.

KU4F's TAPR kit finally arrived. Thornton should be on the air by the time this is printed. Connect to him via KF4TT-1 and welcome him to the network. Thornton is presently attempting to be the first ham to bounce packets off the Moon, and successfully decode the echo. His initial experiments resulted in signals too weak to be displayed by his TNC. A new amplifier and modem are under construction, and hopes are high for the next attempt.

At the Orlando Hamfest FADCA dinner, several members discussed the possibility of organizing a technical meeting involving all of SOUTHNET. After considerable discussion it was decided that the meeting would be held this summer at the University of Florida, in Gainesville. Much work has been done since that dinner. The date for the "SOUTHNET PACKET CONFERENCE" has been set for June 15th and 16th.

The SOUTHNET PACKET CONFERENCE will include as wide a range of topics as possible. There will be workshops and lectures covering all aspects of packet radio, from the basic problems of getting on the air to what protocol to use for level three. As the name implies, we intend to concentrate on problems concerning SOUTHNET, but we will be receptive to inputs from other areas. The conference will not be limited to technical discussions on hardware and software. We will have help sessions to aid those who want to get involved with packet. There will be workshops for the organization of message handling procedures, and emergency communications applications of packet radio, as well as lectures on "Digital Imagery" and military uses of packet.

June is not very far away, and there is still much work to be done. FADCA will be arranging for speakers, working out the scheduling of the different events, and advertising the conference. GARC will provide the meeting rooms, information about Gainesville, and generally act as the liaison betwen the amateur community and the University of Florida. Any help that you can provide to our two organizations would be appreciated. The contact point for FADCA is Gwyn Reedy (W1BEL). Prior to April 30th the best contact point for GARC is myself. After the semester ends at U of F most of the students, myself included, will disappear until the fall. Scott Fox (KF4TT) will then take over as GARC liason.

Thats about all of the information I have for you. We will try to keep you up-to-date on the situation at this end. Feel free to call me at (904) 373-0376 if you have any questions.

73's Joe (WA4NWO)

Gwyn Reedy, W1BEL
% FADCA

Dear Gwyn:

It seems like a long time since we used to have you check into our North Central Jersey Tech. nets on Sundays!

Just wanted to drop you a note to thank you for forwarding the FADCA BEACON to us. Enclosed is a check to cover past postage, etc. and keep it coming.

I will also take this opportunity to express my personal opinions relating to the expolosion of numbers of packet stations that the Heathkit-Zenith promotion is bound to generate....You may publish any part that may seem of interest to your group.

K2TKN has been in three wars on the Ham Bands - as W0ETJ we helped start NBFM on 75 meters before there were crystal controlled 2 meter rigs - then rode out the jibes and catcalls getting SSB accepted on 75 and 20 - then opening up the high end of 2 meters with liberated taxi repeaters - that was enough, there is just no valid reason not to speak out when I see another war starting because of packet operation on heavily populated channels.

I am in favor of trying new modes of communication and applaud the VKs and your group's efforts to link widely spaced stations into a working network...but am violently against setting any form of standard (hardware or software) this early in packet. We need AX.25 as an entry-level protocol to get new stations operational and in contact with their local packet group, but it should be well understood that AX.25 on AFSK at 1200 baud is about at the technical level of spark transmitters and crystal receivers on long-wave. Our TNCs and particularly repeaters must be kept open for experiments with better protocols. Digipeaters (REGENERATORS) operating on lacal net frequencies at 1 to 1 speed ratios are doomed to failure just as soon as any real volume of traffic shows up. The Pony Express was great but went bust the instsant a wire was strung along the route! The full pageg ads promoting sale of packet equipment--"Everyone can be a REPEATER OWNER" and "automatic Digi-ptr with a few keystrokes" are the culprits and should be stood against the wall and shot for starting a war! Any TNC or repeater that the owner can't reprogram easily is going to be obsolete very quickly in this digital operation.

We think the next generation of repeaters will handle mixed modes of operation (baseband FM and SSB for voice and subcarriers for digital) but of utmost importance will be bulletin boards with gateway channels to DMA large blocks of memory to adjacent bulletin boards. Getting to this point is not going to happen overnight and requires a great deal of experimentation that poor protocols may hinder. As long as the experienced packet operator understands that the pasting and patching that attempts to make AX.25 a smart-term with link level 3 repeater capability has not improved throughput of data or resistance to collision link failure. The real advantage of packet is the ability to run many QSOs on the same frequency without interference and this takes squeeky-clean packet structures with short interrupt loops in the TNCs. Everyone keeps adding more tasks for the poor TNC to try to keep up with -- we are using a cut version in our local 220 net that is totally compatible (terminal to terminal) with any version of AX.25 but only uses a bit more than 3k of EPROM in a Vancouver or Ashby TNC. With C-64s sellihg for $129 and disk drives for less than $150 it makes sense to strip the TNC software to make it as transparent to ASCII as possible.

When two stations can be running MacPaint graphics on each other's machine, packet operation will have graduated High School...I don't want to speculate on College!

We have been running tests for several months on Doug Lockhart's (VE7APU) V2 protocol and find parts of it to be very clean, until he gets tangled up in designing another monitor--just what we don't need. We are stripping it down to bare-bones and find its throughput far exceeds AX.25 at the same link speed and very useful on our point-to-point microwave links. It only took a few minutes to assemble his source code and burn new EPROMS, make a simple wiring patch and any Vancouver or Ashby TNC is running V2--try that on your "OEM acceptable designs."

We need open source code for program modification that can be assembled on any CP/M or MS-DOS machine. ASM is not very fancy, but everyone has access to it--which they sure do not have with MAC, RMAC, M80, etc. Let the people who are hung up on Unix, Pascal, Forth, and C work on programming gateway controllers that will be totally transparent to us poor people! AND, used on channels we don't have to compete with!"

OK, off the soapbox, but I seem to be the only voice from the wilderness that keeps saying manufacturers that sell a few hundred units always try to prevent any improvement that may require them to modify those units already sold or admit they may be obsolete. If you hear of anyone that can make an EXAR chip set come anywhere near the performance of a Rixon or Telco 202 modem, please let me know. I've got a lot of customers having a hard time finding them at reasonable prices.

Meanwhile, keep up the good work, keep your net open to strange signals (they may be better). And publish anything that might work-------

Regards,
Bill Ashby, K2TKN
Box 332, Pluckemin, NJ 07978
(201) 658-3087

RETRIES

The 12vdc conversion article in the February BEACON should be corrected as follows: Under hook-up, step number 7, change U22 (pin 3) to read U23 (pin 3).

FADCA>BEACON

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...And lots of help from many others. Thanks!!

FADCA is a non-profit organization devoted to research, development, education, and public service. FADCA is governed by a board of directors and administered by officials appointed by the directors. The directors are:

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Ted Huf, K4NTA
Tom Kneisel, K4GFG
Bill Sams, KF4LG
Dave Frey, K3AAX
Dick Klein, W4PCM
Gwyn Reedy, W1BEL
Bill Whitaker, WD4JKM

Officers:
President - Gwyn Reedy, W1BEL
Executive Vice President - Ted Huf, K4NTA
Secretary - Don Deem, KB4LLO
Treasurer - Steve Crowley, N4AIY

FADCA membership is open to anyone interested in supporting FADCA purposes. For introductory information about FADCA and packet radio please send a self-addressed, stamped (4 ounces) 8 1/2 by 11 inch envelope to the FADCA address. To join, complete the membership application enclosed and send with your dues payment to the FADCA address. Dues for calendar year 1985 are $12.00 and includes all issues of Vol. 2 of the FADCA>BEACON. Dues support newsletter publication and the printing of material for distribution at hamfests, computer and radio club meetings, and by mail.

The deadline for inputs for the April issue of the FADCA > BEACON is April 22nd. The April issue will come out in early May to allow timely coverage of the Dayton Hamvention. Articles should be in final form using a 55 character line length.

Advertising space is available in the FADCA>BEACON according to the following rate schedule. There will be an additional charge of $10.00 for set up of non-camera ready copy.

Full page	$30.00	Discounts for multiple issue contracts.
Half page	$17.00	
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Rates are based on a monthly circulation of 250 copies. BEACON readers are dedicated, enthusiastic experimenters and builders comprising a specialized, trend-setting market.

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DIGITAL EVENTS

MARCH 30/31.	4th ARRL Computer Networking Conference, San Francisco.
APRIL 20/21.	Trenton Computer Festival, Trenton, NJ.
APRIL 26/28.	Dayton Hamvention.
JUNE 15/16.	SOUTHNET Packet Conference, University of Florida, Gainesville.

THE FLORIDA AMATEUR DIGITAL COMMUNICATIONS ASSOCIATION NEWSLETTER

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Digital Communications Assoc.
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